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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,066	08/09/2006	Nicholas Leo Weatherby	0126-028P/FLS	4274
22831 7590 04/16/2008 SCHWEITZER CORNMAN GROSS & BONDELL, LLP 292 MADISON AVENUE - 19th FLOOR NEW YORK, NY 10017				
EXAMINER				
BODAWALA, DIMPLE N				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
04/16/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/553,066

**Applicant(s)**

WEATHERBY ET AL.

**Examiner**

DIMPLE N. BODAWALA

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

⇒ Claims 22-42 are pending.

#### ***Response to Amendment***

In view of the amendment filed on 1/24/2008 following rejection is withdrawn as a reason of record from the previous office action, mailed on 10/31/2007.

⇒ Rejection of claims 22-40 under 35 U S C 112, second paragraph.

In view of the amendment filed on 1/24/2008 following rejections are maintained as a reason of record from the previous office action, mailed on 10/31/2007.

⇒ Rejection of claims 22, 25, 26, 28, 30, 31, 33, 34, 35, and 39 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over U S Patent No. 7,306,693 in view of Miyazaki et al. (JP 01016632).

⇒ Rejection of claims 22-42 under 35 U S C 103(a) as being unpatentable over Boyce (U S Patent No. 6,228,312) in view of Miyazaki et al. (JP 01016632).

#### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to

exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 22, 25, 26, 28, 30, 31, 33, 34, 35, and 39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-9 of U.S. Patent No. 7,306,693 in view of Miyazaki et al. (JP 01016632).

3. U S Patent No. 7,306,693 claims all claimed structural limitations as cited in the claims of the instant application. It further claims that the outer member of the central portion comprises a support means for providing an air gap, but fails to claim a further heating means as a support means.

4. In the analogous art, Miyazaki et al. discloses lining technique for pipeline (duct) which comprises a plastic pipe (1) is heated uniformly in the direction of the thickness thereof by the heating means (2, 5) from the inside and outside of the same, wherein the heating means (2) is disposed in the inner side of the pipe, and the further heating means (5) is surrounded to the heating means (8), wherein the further heating means would be capable to ensure more uniform heating of both the liner and composite material (See figure 1).

5. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of (U S Patent No. 7,306,693) by providing the further heating means as support means because such an alignment is involved to heat the pipe which comprises a liner with a layer of composite material uniformly in the direction of the thickness (See abstract) as suggested by Miyazaki.

***35 USC § 112, Sixth paragraph***

6. Where claim limitations (means plus function) of claims 27-30 meet the 3-prong analysis and is being treated under 35 U S C 112, sixth paragraph, the examiner will include a statement in the Office action that the claim limitations being treated under 35 U S C 112, sixth paragraph. Instant application suggests that heating means and means are provided for

directing hot gas (See Pages- 3 and 4 of the specification of the instant application). However, prior arts, Boyce (U S Patent No. 6,228,312) discloses an apparatus which comprises heating means (8) for producing pressurized hot gas, and forcing the hot gas under pressure through the layer of composite material to heat the layer, and to provide an air gap on the opposite side of the layer of composite material while heating takes place (See figure 3, col.7 lines 38-51). Miyazaki et al. (JP 01016632) teaches that the pipe (1) is heated by a inner heating means (2) and outer heating means (5), wherein the pipe (1) is heated uniformly in the direction of the thickness thereof by the heating from inside and outside under compression (See abstract), which inherently suggests that the tubular heating means (5) as a further heating means is passive and active heating device containing heating elements for heating the pipe uniformly in the direction of the thickness under compression.

***Claim Rejections - 35 USC § 103***

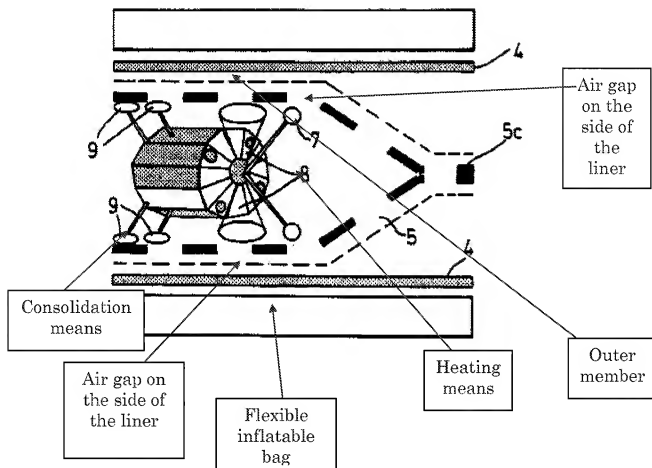
7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 22-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce (U S Patent No. 6,228,312) in view of Miyazaki et al. (JP 01016632).

9. As to claim 22, Boyce ('312) discloses a lining pipe as a lining duct having a flexible liner (5), wherein liner (5) including a layer of composite material comprising thermoplastic material and reinforcing fibers (See abstract) into a structural member within a duct (4), duct (4) comprises a front portion, a rear portion and a central portion, wherein a front portion adapted to be inserted in liner, a central portion having heating means (8) on one side of the layer of the composite material, and a rear portion having consolidation means (9) for forcing the layer of the composite material toward the duct (4) for consolidation and cooling under pressure for forming a structural member (See figure 3, col.4 lines 46 through col.5 lines 20).

10. As to claims 25-29, it further discloses the heating means (8) for producing pressurized hot gas, the central portion being so constructed and arranged to force the hot gas under pressure through the layer of composite material to heat the layer, and to provide an air gap on the opposite side of the layer of composite material while heating takes place (See figure 3, col.7 lines 38-51). It further teaches that the liner (5) includes an outer thermoplastic layer between the duct (4) and the composite layer (See col.2 lines 44-64). It further teaches that the central portion has inner and outer member, wherein the inner member comprises a heating means (8) so that the layer of composite material is heated from the inside, and the outer

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member is annular, surrounding and spaced from the inner member (See figure 3).



11. As to claims 31-38, it further teaches that the unheated compress air is used as the consolidation means forcing the heated layer of the composite material into contact with the duct (See col.7 45-58). It further teaches that the compressed air inflates a flexible bag means (10) which acts on the layer of composite material, wherein the bag (10) attached to the central portion, and expanded from the rear, unrolling as it does so (See col.7 lines 59-62,



col.8 lines 52-60). It further teaches that the bag (10) is made of plastic, which is silicon-based material (See col.5 line 32). It further teaches that the latter involves inserting a pipe liner is fabricated from PVC (See col.1 lines 30-32), which can be understandable that the bag is of PVC.

12. As to claims 41 and 42, figure 3 further teaches that the compressed air and power for the heating means (8) are supplied through the lines attached to the apparatus (See figure 4). Figure 3 further discloses a mobile unit for generating compressed air supply and the power to operate the apparatus.

13. Boyce ('312) discloses all claimed structural limitations as discussed above but fails to teach or suggest a further heating means and a winch.

14. As to claim 22, in the analogous art, Miyazaki et al. discloses lining techniques for pipeline which comprises a pipe with liner, wherein liner is made of layer of composite material having front (2b), central (2c+2d), and rear portion (2a) (See figure 3). It further comprises an apparatus having a heating pig (2) and tubular heater (5), wherein the tubular heater (5) as a further heating means disposed in the outer member of the lining pipe, and the heating pig (2) as a heating means is disposed in the inner side member. It further teaches that the pipe (1) is heated by a inner heating means (2) and outer heating means (5), wherein the pipe (1) is heated uniformly in the direction of the thickness thereof by the heating from inside and outside

under compression (See abstract). It would be understandable that the tubular heating means (5) as a further heating means is passive and active heating device containing heating elements. It further teaches that the hot gas is directed from the air gap (shown as arrows in figures) forwardly to provide pre-heating of the liner at the front portion (2b), wherein the hot gas is produced by heating a supply of compressed air (10) (See abstract).

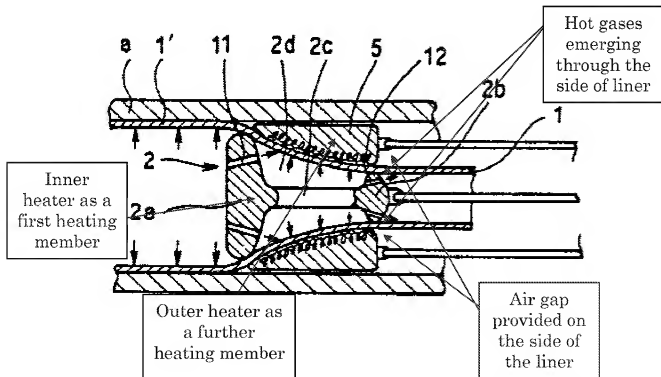
15. As to claim 23, it further teaches that the pipe (1) is heated by a inner heating means (2) and outer heating means (5), wherein the shape of the further heating means is a tubular and heated in a direction of thickness and it is well known in the art that the passive heating means relies on orientation and design of the heating means (see NPL, cited on PTOL-892 for further clarification of passive heating means), wherein tubular heating means inherently suggests that the further heating means is a passive heating device.

16. As to claim 24, it further teaches that the pipe (1) is heated uniformly in the direction of the thickness thereof by the heating from inside and outside under compression (See abstract), wherein the compressed air and the power for the heating means are supplied through the line (6, 7, 8a, 9, 10) attached to the apparatus, which is a function of mechanical means, and it is well known in the art that the active heating means is known as mechanical

means for trapping or supplying heat, wherein the function of heating means inherently suggests that further heating means is active heating device containing heating elements for heating the pipe uniformly in the direction of the thickness under compression.

17. As to claim 41, it further teaches that the compressed air and the power for the heating means are supplied through the line (6, 7, 8a, 9, 10) attached to the apparatus.

18. As to claims 40, figures 1 and 2 teach the apparatus which is moved along the duct (4) by being winched from its front portion (2b).



19. Furthermore, claims 36-38 recite claimed limitations of a content, such as Flexible bag, but fail to further limit of the subject matter such as a liner

conversion apparatus, wherein these claims treat as an intended use, which is given no patentability weight.

20. Furthermore, claims of the instant application cited claimed structural limitations with the intended uses such as “consolidation means for forcing the layer of composite material after heating thereof towards the duct for consolidation and cooling under pressure to form the structural member ” ; “first heating means for producing hot gas under pressure”; and “further heating means is adapted to ensure more uniform heating of both the liner and composite material” as cited in claim 22; “means for directing hot gas from the air gap forwardly to provide pre-heating of a front portion of the liner” as cited in claim 30; “a source of compressed air is provided to deliver compressed air to the apparatus” as cited in claims 31-33; and “compressed air and power for the heating means and to operate apparatus” as cited in claims 41 and 42. As we know that the claim which is involved as an intended use, is given no patentability weight. Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim, *Ex parte Thibault*, 164 USPQ 666. A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus satisfying

the claimed structural limitation, *Ex parte Masham*, 2 USPQ2d 1647.

Therefore, if prior arts disclose all claimed structural limitations as discussed above, wherein all structural limitations would be capable to do all functions as cited in the claims of the instant application.

21. Furthermore, claims of the instant application discloses process limitation for operating apparatus such as “forcing the layer of composite material, after heating thereof towards the duct for consolidation and cooling under pressure to form the structural member” as cited in claim 22; “hot gas is produced by heating compressed air from the source thereof” as cited in claim 31; and “the consolidation means is actuated by compressed air from the source to force the heated layer of the composite material into contact with the duct” as cited in claim 32. As we know that with regard to claim recitation regarding the method of forming apparatus, such relate only to the method of producing the claimed apparatus, which does not impart patentability to the apparatus claims. Note that determination of patentability is based on the product apparatus itself, *In re Brown*, 173 USPQ 685, 688, and the patentability of a product does not depend on its method of production, *In re Pilkington*, 162 USPQ 145, 147; See also *In re Thorpe*, 227 USPQ 964 (CAFC 1985). Note also that it is Applicant’s burden to prove that an unobvious difference exists, *In re Marosi*, 218 USPQ 289,

292-293 (CAFC 1983), and Applicant must show that different methods of manufacture produce article having inherently different characteristics, *Ex parte Skinner*, 2 USPQ2d 1788.

22. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Boyce ('312) by providing a further heating means because such an alignment is involved to heat the pipe from the outside uniformly in the direction of the thickness (See abstract) as suggested by Miyazaki et al. (JP 01016632).

23. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Boyce ('312) by providing a winch in the front portion of the duct because such an alignment is involved to move the apparatus along the duct during the operation as suggested by Miyazaki et al. (JP 01016632).

### ***Response to Arguments***

24. Applicant's arguments filed on 1/24/2008 have been fully considered but they are not persuasive.

25. Applicant argues that the prior art, Miyazaki (JP 01016632) fails to teach or suggest passing hot gases through a composite layer while maintaining an air gap and providing for further heating means on the air gap sides of the composite material. Applicant further argues that the prior

art, Miyazaki fails to include an air gap. Applicant further argues that the prior art, Miyazaki is absent from the concept of providing a combination of (a) heating of the liner by passing hot gases through the preamble liner, (b) maintaining an air gap on the side of the liner through which the hot gases are emerging and (c) providing for a further heating means on the air gap side of the liner.

26. Applicant's arguments are fully considered but not found persuasive because the prior art, Miyazaki discloses lining technique apparatus with inner heating means (2) and outer heating means (5) as a further heating means , wherein the further heating means (5) is involved to provide an air gap on the side of the liner (See figures 1 and 2). Applicant discloses arguments with the intended uses of the further heating means such as heating of the liner by passing hot gases through the preamble liner, and maintaining an air gap on the side of the liner through which the hot gases are emerging in the remark. If prior art discloses a further heating means as a support means for providing an air gap, which would be capable to do all functions as cited in the claims and remark of the instant application.
27. Applicant further argues that the prior art, Boyce (U S Patent No. 6,228,312) fails to discloses an air gap.

28. This is not found persuasive because the prior art fails to describe the air gap in the disclosure, however, the drawing of the Boyce shows an air gap on the side of the liner (See figures 3 and 4).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIMPLE N. BODAWALA whose telephone number is (571)272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PHILIP C. TUCKER can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 1791

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